

Tripterin

Catalog No: tcsc0409



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

34157-83-0

Formula:

$C_{29}H_{38}O_4$

Pathway:

Metabolic Enzyme/Protease;Autophagy;Autophagy

Target:

Proteasome;Autophagy;Mitophagy

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 50 mg/mL (110.96 mM)

Alternative Names:

Celastrol

Observed Molecular Weight:

450.61

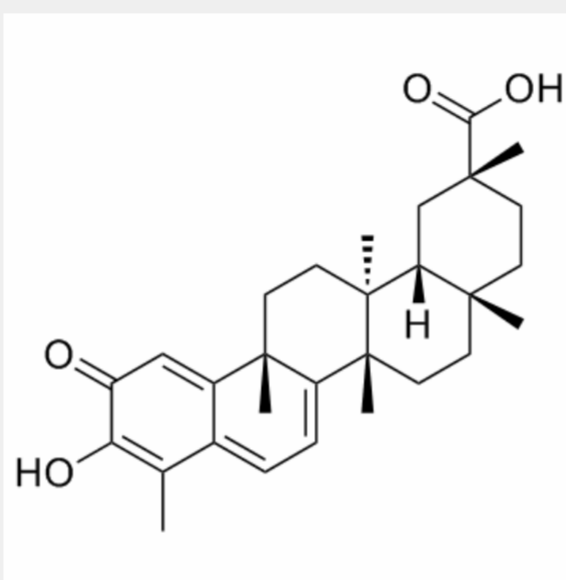
Product Description

Tripterin (Celastrol) is a **proteasome** inhibitor which potently and preferentially inhibits the chymotrypsin-like activity of a purified **20S proteasome** with **IC₅₀** of 2.5 μM.

IC50 & Target: IC50: 2.5 μM (20S proteasome)^[1]

In Vitro: Tripterin (Celastrol) significantly inhibits the proteasomal chymotrypsin activity in PC-3 cells in a concentration-dependent manner; at 2.5 μM it reaches ~55% inhibition, comparable to its potency to a purified 20S proteasome (IC₅₀=2.5 μM). Furthermore, increased levels of IκB-α, Bax, and p27 are observed, three well known target proteins of the proteasome in PC-3 cells treated with Celastrol^[1].

In Vivo: Treatment of PC-3 tumor-bearing nude mice with Tripterin (Celastrol) (1-3 mg/kg/d, i.p., 1-31 days) results in significant inhibition (65-93%) of the tumor growth^[1]. Following treatment with 3 and 6 mg/kg Tripterin (Celastrol), the levels of malondialdehyde (MDA) are significantly decreased by 35.2 and 36.7% (P[2]).



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